

207.5 - Nonmagnetic Coating Thickness (plate form)

These SRMs are suitable for calibrating instruments used in the measurement of organics and nonmagnetic inorganic coatings over steel. They consist of fine grained copper of varying thicknesses electrodeposited onto low carbon steel substrates having the properties of AISI 1010 steel. These uniform coatings are then overplated with a thin protective layer of chromium and the total coating thickness is then certified. The thickness range covered is between 6 μm and 2000 μm . Each unit is also supplied with a blank substrate. **NOTE:** Based on the stability of the coating, wear is the primary factor in determining if a copper on steel SRM needs reverification. If excessive wear is suspected, contact the NIST Electrochemical Processing at: Phone: (301) 975-6400; Fax: (301) 926-7679 or e-mail: coating.thickness@nist.gov

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PLEASE NOTE: The tables are presented to facilitate comparisons among a family of materials to help customers select the best SRM for their needs. For specific values and uncertainties, the certificate is the only official source.

SRM	1358b	1359b	1361b	1362b	1363b	1364b
Description	Coating Thickness Standard, (Nonmagnetic Coating on Steel)	Coating Thickness Standard (Cu & Cr Coating on Steel)	Coating Thickness Standard (Cu & Cr Coating on Steel)	Coating Thickness Standard (Cu & Cr Coating on Steel)	Coating Thickness Standard (Nonmagnetic Coating on Steel)	Coating Thickness Standard (Cu & Cr Coating on Steel)
Unit Size	(set (4))	(set (4))	(set (4))	(set (4))	(set (4))	(set (4))
Coating Thickness, nominal						
(mils)	0.8, 3.1, 9.8, 39?	2.0, 5.5, 20, 32 ?	0.2, 0.5, 1.0, 2.0?	1.6, 3.1, 5.5, 7.9?	9.8, 16, 20, 26?	32, 39, 59, 79?
(μm)	20, 80, 255, 1000?	48, 140, 505, 800?	6, 12, 25, 48?	40, 80, 140, 205?	255, 385, 505, 635?	800, 1000, 1525, 1935?